

HP ProLiant BL p-Class GbE2 Interconnect Switch Browser-based Interface Reference Guide



August 2003 (First Edition)
Part Number 331401-001

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About This Guide

This guide can be used for reference when configuring the HP ProLiant BL p-Class GbE2 Interconnect Switch.



WARNING: To reduce the risk of personal injury from electric shock and hazardous energy levels, only authorized service technicians should attempt to repair this equipment. Improper repairs can create conditions that are hazardous.

Technician Notes



WARNING: Only authorized technicians trained by HP should attempt to repair this equipment. All troubleshooting and repair procedures are detailed to allow only subassembly/module-level repair. Because of the complexity of the individual boards and subassemblies, no one should attempt to make repairs at the component level or to make modifications to any printed wiring board. Improper repairs can create a safety hazard.



WARNING: To reduce the risk of personal injury from electric shock and hazardous energy levels, do not exceed the level of repairs specified in these procedures. Because of the complexity of the individual boards and subassemblies, do not attempt to make repairs at the component level or to make modifications to any printed wiring board. Improper repairs can create conditions that are hazardous.



WARNING: To reduce the risk of electric shock or damage to the equipment:

- Disconnect power from the system by unplugging all power cords from the power supplies.
- Do not disable the power cord grounding plug. The grounding plug is an important safety feature.
- Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.



CAUTION: To properly ventilate the system, you must provide at least 7.6 cm (3.0 in.) of clearance at the front and back of the switch.



CAUTION: The computer is designed to be electrically grounded (earthed). To ensure proper operation, plug the AC power cord into a properly grounded AC outlet only.

NOTE: Any indications of component replacement or printed wiring board modifications may void any warranty.

Where to Go for Additional Help

In addition to this guide, the following information sources are available:

- *HP ProLiant BL p-Class GbE2 Interconnect Switch Application Guide*
- *HP ProLiant BL p-Class GbE2 Interconnect Switch Command Reference Guide*
- *HP ProLiant BL p-Class GbE2 Interconnect Switch User Guide*
- *HP ProLiant BL p-Class C-GbE2 Interconnect Kit Quick Setup Instructions*
- *HP ProLiant BL p-Class F-GbE2 Interconnect Kit Quick Setup Instructions*
- Service training guides
- Service advisories and bulletins
- QuickFind information services
- Insight Manager software

Telephone Numbers

For the name of your nearest HP authorized reseller:

- In the United States, call 1-800-345-1518.
- In Canada, call 1-800-263-5868.

For HP technical support:

- In the United States and Canada, call 1-800-652-6672.
- Outside the United States and Canada, refer to
www.hp.com

Getting Started

Introduction

The HP ProLiant BL p-Class GbE2 Interconnect Switch software lets you use your Web browser to access GbE2 Interconnect Switch information and statistics and perform switch configuration via the Internet.

This guide provides an overview of how to access and use the GbE2 Interconnect Switch browser-based interface (BBI).

This chapter briefly describes the software features and requirements for the HP ProLiant BL p-Class GbE2 Interconnect Switch browser-based interface (BBI) and explains how to access the BBI start page.

Additional References

Additional information about installing and configuring the GbE2 Interconnect Switch is available in the following guides, which are located on the ProLiant BL p-Class GbE2 Interconnect Switch Management Utilities and User Documentation CD:

- *HP ProLiant BL p-Class GbE2 Interconnect Switch User Guide*
- *HP ProLiant BL p-Class GbE2 Interconnect Switch Application Guide*
- *HP ProLiant BL p-Class GbE2 Interconnect Switch Command Reference Guide*

Features

The network administrator can access GbE2 Interconnect Switch configuration and monitoring functions through the BBI, a browser-based switch management interface. The BBI has the following features:

- Provides an intuitive and easy-to-use interface structure
- Requires nothing to install; the BBI is part of the switch software
- Provides password protection
- Is upgradeable as future software releases are available

Requirements

To use the browser-based interface, you need the following:

- Installed GbE2 Interconnect Switch with Internet Protocol (IP) address
- PC or workstation with network access to the GbE2 Interconnect Switch
- Frame-capable Web-browser software, such as:
 - Netscape Navigator 4.7x or higher
 - Microsoft® Internet Explorer 6.0x or higher
- JavaScript™ enabled in your Web browser

GbE2 Interconnect Switch Setup

Before you can access the BBI, an IP address must be assigned to the GbE2 Interconnect Switch.

By default, the GbE2 Interconnect Switch is configured to obtain an IP address from a Bootstrap Protocol (BOOTP) server. If you do not have a BOOTP server, at least one Internet Protocol (IP) interface must be configured and enabled on the GbE2 Interconnect Switch. This is usually done from the command line interface (CLI) during the first-time switch setup. From the command line, use the following command to begin the Setup utility:

```
# /cfg/setup
```

During the setup, select an IP interface (1-256) and configure it properly. Each IP interface address provides a point of access for GbE2 Interconnect Switch management.

You can also enter the following from the CLI to configure and enable the IP address:

```
>> Main# /cfg/ip/if <interface number>
```

```
>> # addr <ip address>
```

```
>> # ena
```

For complete information about using the Setup utility and configuring IP interfaces, refer to the *HP ProLiant BL p-Class GbE2 Interconnect Switch Browser-based Interface Reference Guide*.

Enabling/Disabling BBI Access

By default, BBI access is enabled. If you need to enable or disable access, use the following command from the command line interface:

```
>> Main# /cfg/sys/http <disable|enable (or just d|e)>
```

For more information on accessing and configuring the GbE2 Interconnect Switch through the command line interface, refer to the *HP ProLiant BL p-Class GbE2 Interconnect Switch Command Reference Guide*.

Web Browser Setup

Most Web browsers work with frames and JavaScript by default, and require no additional setup. However, you should check the features and configuration of your Web browser to make sure frames and JavaScript are enabled.

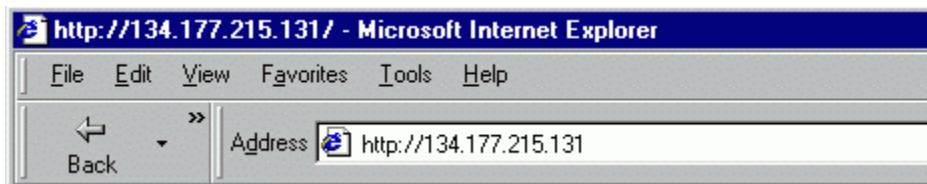
NOTE: JavaScript is not the same as Java™. Make sure that JavaScript is enabled in your Web browser.

Starting the BBI

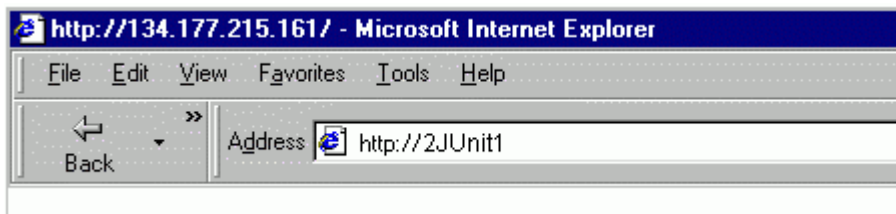
When the GbE2 Interconnect Switch and browser setup is complete, follow these steps to launch the BBI:

1. Start your Web browser.
2. Enter the GbE2 Interconnect Switch IP interface address in the Web browser Uniform Resource Locator (URL) field.

For example, if the GbE2 Interconnect Switch IP interface has a network IP address of 134.177.215.131. Using Internet Explorer, you could enter the following.

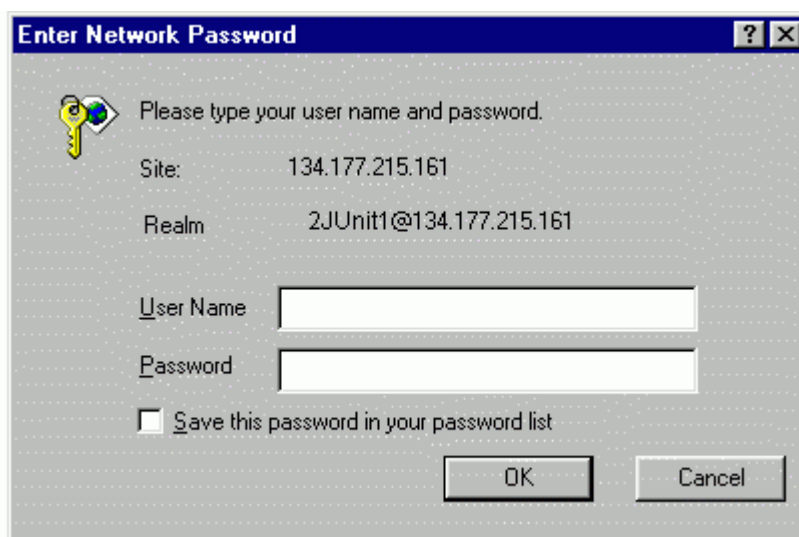


If the GbE2 Interconnect Switch IP interface address has a name on your local domain name server, you could enter the name instead.



3. Log in to the GbE2 Interconnect Switch.

If your GbE2 Interconnect Switch and browser are properly configured, you will be asked to enter a password.



Enter the appropriate account name and password for the switch. The default administrator account name and password are **admin**. For more password information, refer to the *HP ProLiant BL p-Class GbE2 Interconnect Switch Command Reference Guide*.

4. Allow the BBI Dashboard page to load.

When the proper account name and password combination is entered, the BBI Dashboard page is displayed in the browser viewing area.

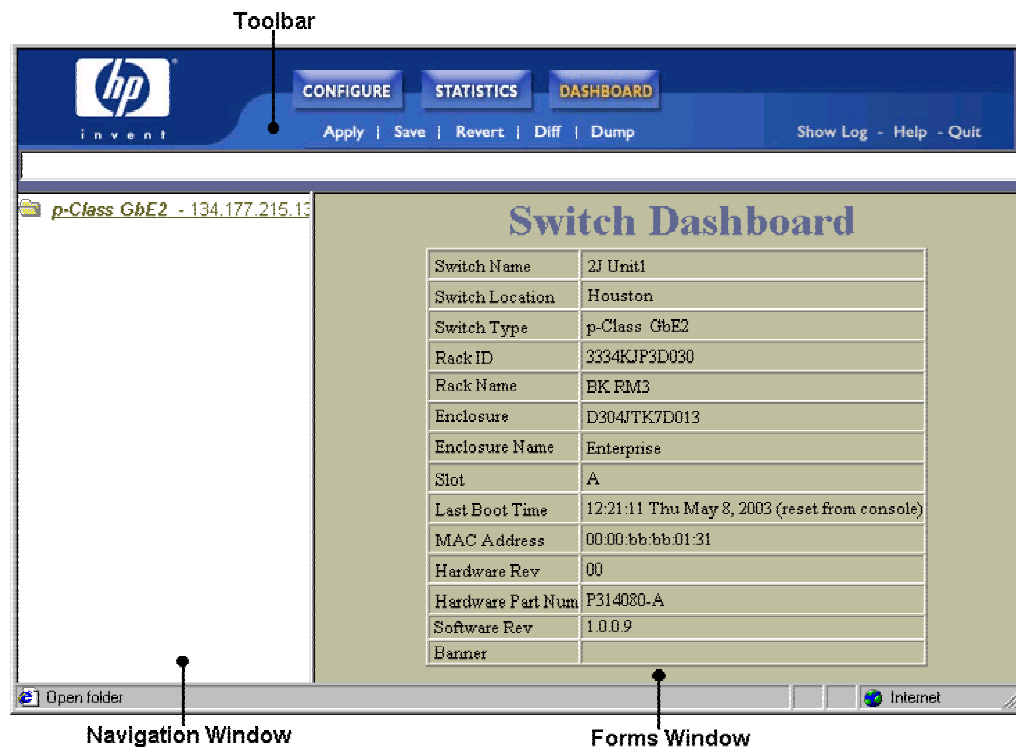


NOTE: There may be a slight delay while the Dashboard page is initializing. You should not stop the browser while loading is in progress. When loading is complete, a folder icon with the GbE2 Interconnect Switch IP address displays in the left-hand BBI window. Click this folder and a tree of folders displays.

Browser-based Interface Basics

Introduction

Once you are properly logged in, the GbE2 Interconnect Switch BBI displays in the Web browser viewing window.



There are three main regions on the screen.

- The toolbar is used for selecting the context for your actions in the other windows.
- The navigation window is used for selecting particular items or features to act upon.
- The forms window is used for viewing or altering GbE2 Interconnect Switch information.

Toolbar

The toolbar contains buttons and commands used to access and execute GbE2 Interconnect Switch functions.

Context Buttons

The toolbar is used for setting the context for your actions in the application. There are three context buttons. When a context icon is selected, the button will be highlighted as a reminder of the current context mode.

| Button | Description |
|-------------------|---|
| Configure | When selected, you can access the GbE2 Interconnect Switch configuration forms. Configuration forms can be altered only if you are logged in using the administrator account. Select an item in the navigation window to display the desired configuration form in the forms window. |
| Statistics | When selected, you can view information about GbE2 Interconnect Switch performance. Select an item in the navigation window to display the desired statistics in the forms window. |
| Dashboard | This context button is selected by default when the BBI is first activated. When selected, basic GbE2 Interconnect Switch information and status can be viewed in the forms window. Select an item in the navigation window to display the desired dashboard information in the forms window. |

Commands

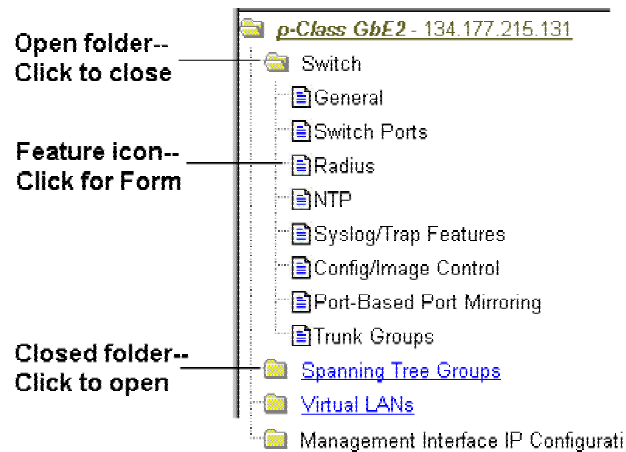
The following general commands are available on the toolbar:

| Command | Description |
|-----------------|---|
| Apply | Executes all changes (except enabling/disabling Spanning Tree Protocol) on the GbE2 Interconnect Switch immediately. If you do not save the changes, however, they will be lost the next time the GbE2 Interconnect Switch is rebooted. |
| Save | Saves the active configuration to backup, and saves the current configuration as active. |
| Revert | Removes changes that have been made, but not applied. |
| Diff | Opens a new Web-browser window for displaying any pending configuration changes that have not been applied. Close the diff browser when finished. |
| Dump | Opens a new Web-browser window for displaying current switch information. Configuration information is displayed with parameters that have been changed from default values. Close the dump browser when finished. |
| Show Log | Opens a new Web-browser window for displaying the 30 most recent GbE2 Interconnect Switch log messages. Close the log browser when finished. |
| Help | Opens a new Web-browser window for displaying the basic online help information. Close the help browser when finished. |
| Quit | Logs off the GbE2 Interconnect Switch and exits the BBI. |

Navigation Window

The navigation window is used for selecting a particular GbE2 Interconnect Switch feature to act upon. Status, statistics, or configuration forms for the selected item will display in the forms window, depending on the context chosen on the toolbar.

The navigation window contains a tree of folders, subfolders, and feature icons.



Click any closed folder to open it and reveal its contents. Click any open folder to close it. Click any feature icon to load the appropriate status, statistics, or configuration form in the forms window.

Some folders also have forms. If the name of a folder is underlined, click the name to display the appropriate form.

Forms Window

When a feature icon is selected on the navigation window, a status, statistics, or configuration form is displayed in the forms window. The exact nature of the form depends on the current context selected on the toolbar, as well as the type of information available. Not all feature icons have forms for all contexts.

Some forms display GbE2 Interconnect Switch information such as settings, status, or statistics. Others allow you to make configuration changes to GbE2 Interconnect Switch parameters.

Configuring the Switch

Introduction

The GbE2 Interconnect Switch BBI can be used to view and change switch configuration parameters.

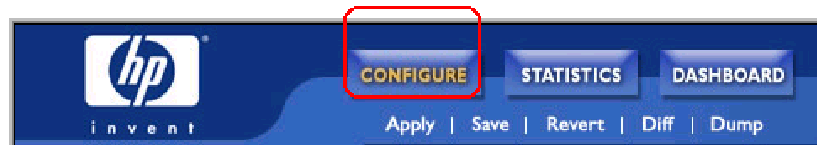
The following provides a basic outline for GbE2 Interconnect Switch configuration. You should first be familiar with configuration as covered in the *HP ProLiant BL p-Class GbE2 Interconnect Switch Command Reference Guide*.

IMPORTANT: You must be logged in using the administrator account in order to change GbE2 Interconnect Switch configuration settings.

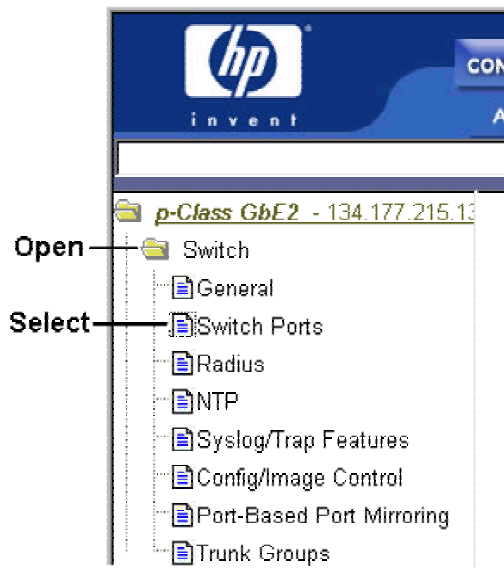
Configuration Steps

Follow these basic steps for viewing or configuring GbE2 Interconnect Switch parameters:

1. Click **Configure** on the toolbar.



2. Select a feature icon in the navigation window. For example:



3. View or make changes to the settings shown in the forms window. For example:

The screenshot shows the HP iNvent web interface with the 'Switch Management Processor Configuration' form. The form contains the following fields:

| | |
|--|-----------------|
| Switch IP Address | 134.177.215.131 |
| Switch IP Subnet Mask | 255.255.255.0 |
| Enable/Disable BOOTP for IP Management | Disabled |
| Enable/Disable Console output of syslog messages | Enabled |
| Syslog Host IP Address | 0.0.0.0 |
| Second Syslog Host IP Address | 0.0.0.0 |
| Severity of Syslog Host | local 7 |
| Severity of Second Syslog Host | local 7 |
| Current Date | 3/19/2000 |

The fields 'Switch IP Address', 'Switch IP Subnet Mask', 'Enable/Disable BOOTP for IP Management', 'Enable/Disable Console output of syslog messages', 'Syslog Host IP Address', 'Second Syslog Host IP Address', 'Severity of Syslog Host', and 'Severity of Second Syslog Host' are highlighted in green. The 'Enable/Disable BOOTP for IP Management' dropdown menu is highlighted with a red box.

NOTE: Fields, which must be configured for proper GbE2 Interconnect Switch operations, are highlighted on the forms in green type. Items which load other forms when selected are underlined.

4. Several buttons display that can be used to submit, reset, and delete information on the forms. Additional buttons display, depending upon the form.

| Button | Description |
|---------------------|---|
| Submit | When selected, the form is sent to the GbE2 Interconnect Switch. Any configuration changes are placed in the “pending” state and do not take effect until the toolbar Apply command is given. |
| Reset | When selected, the form fields are reset to their last submitted values. |
| Delete | This button is available for configuration items that can be deleted. When selected, the featured item is slated to be removed from the GbE Interconnect Switch configuration database. The item is not actually deleted, however, until the toolbar Apply command is given. |
| Dif | When selected, any pending configuration changes that have not been applied display. |
| Diff flash | This button displays all pending configuration changes that have been applied but not saved to flash memory (NVRAM). |
| Revert | When selected, this button removes changes that have been made, but not applied. |
| Revert apply | This button removes all changes that have not been saved. |

5. Apply and save your changes using the toolbar commands.



Pending configuration changes (including deletions) do not take effect until the **Apply** command is selected.

Applied changes take effect on the GbE2 Interconnect Switch immediately, but will be lost the next time the GbE2 Interconnect Switch switch is rebooted unless the **Save** command is selected.

Viewing Statistics

Introduction

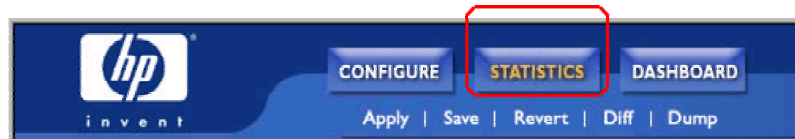
The GbE2 Interconnect Switch BBI can be used to view a variety of switch performance statistics.

The following provides a basic outline for viewing statistics. You should first be familiar with configuration as covered in the *HP ProLiant BL p-Class GbE2 Interconnect Switch Command Reference Guide*.

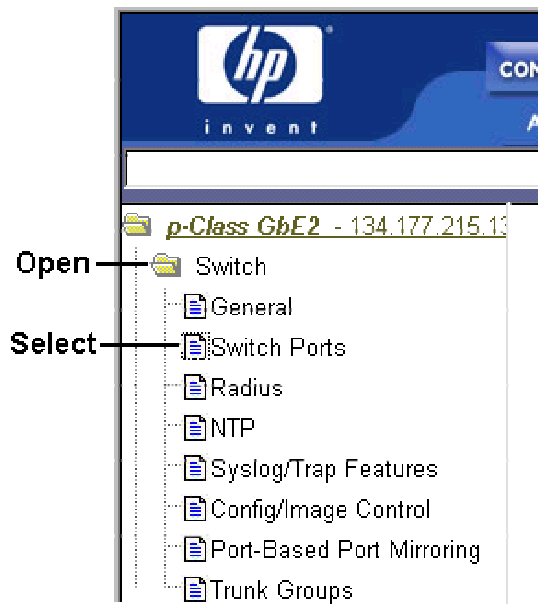
Steps for Displaying Statistics

Follow these basic steps for viewing GbE2 Interconnect Switch statistics.

1. Click **Statistics** on the toolbar.



2. Select a feature icon in the navigation window. For example:



3. View the statistics in the forms window. For example:

The screenshot shows the HP iNvent web interface with the 'Switch Ports Statistics Summary' table displayed. The table has four columns: Switch Port, InOctets, OutOctets, and Total Errors. The 'Switch Ports' option in the navigation menu is underlined.

| Switch Port | InOctets | OutOctets | Total Errors |
|-------------|---------------------|---------------------|--------------|
| <u>1</u> | 32446 | 1368985254 | 0 |
| <u>2</u> | 0 | 0 | 0 |
| <u>3</u> | 0 | 1169446721990688768 | 0 |
| <u>4</u> | 1178313747675884800 | 11007 | 0 |
| <u>5</u> | 6074869178743928256 | 9222911484585662692 | 0 |
| <u>6</u> | 18470 | 1365353855 | 0 |
| <u>7</u> | 0 | 5282757684716634112 | 0 |
| <u>8</u> | 13760 | 1369004260 | 0 |
| <u>9</u> | 0 | 0 | 0 |
| <u>10</u> | 0 | 1178323646297407488 | 0 |
| <u>11</u> | 0 | 0 | 0 |
| <u>12</u> | 1178220841960210432 | 0 | 0 |
| <u>13</u> | 0 | 0 | 0 |
| <u>14</u> | 0 | 0 | 0 |
| <u>15</u> | 9223218659277682112 | 1369004260 | 0 |

NOTE: Items which load other forms when selected are underlined.

The Dashboard

Introduction

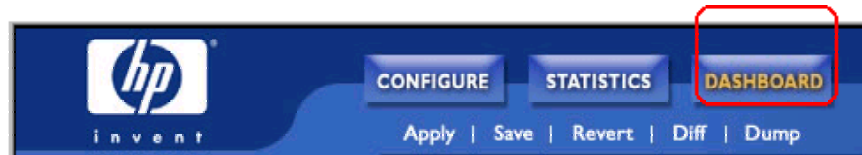
The GbE2 Interconnect Switch BBI can be used to view the present settings and operating status of a variety of GbE2 Interconnect Switch features.

The following provides a basic outline for viewing the dashboard forms. You should first be familiar with configuration as covered in the *HP ProLiant BL p-Class GbE2 Interconnect Switch Command Reference Guide*.

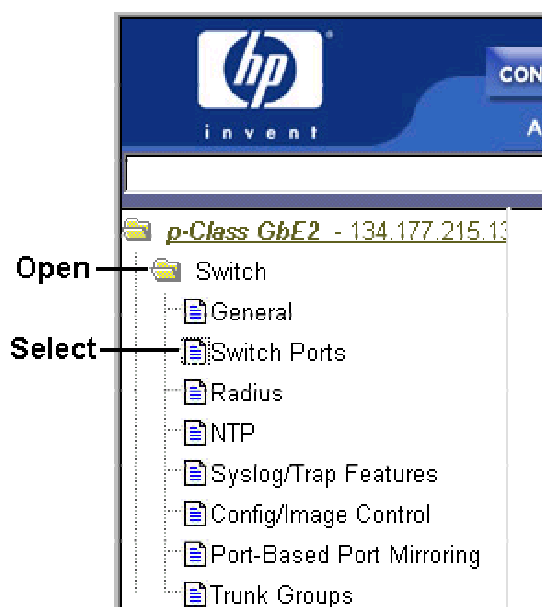
Steps for Displaying Dashboards

Follow these basic steps for viewing switch dashboard forms.

1. Click **Dashboard** on the BBI toolbar.



2. Select a feature icon in the navigation window. For example:



3. View information shown in the forms window. For example:

The screenshot shows the HP ProLiant BL p-Class GbE2 Interconnect Switch Browser-based Interface. The 'Switch Ports Dashboard' is displayed, showing a table with the following columns: Status, Switch Port Info, Operational Status, Speed Duplex Flow Ctl, Input Frames Output Frames, and LinkState Changes Total Errors. The table lists information for Port1 through Port5.

| Status | Switch Port Info | Operational Status | Speed Duplex Flow Ctl | Input Frames Output Frames | LinkState Changes Total Errors |
|--------|--|--------------------|-----------------------|----------------------------|--------------------------------|
| | <u>Port1: stp: FORWARDING</u> rmon: disabled tagging: disabled PVID: 1 | operational | 100/Full/Both | 44 29166021 | 1 0 |
| | <u>Port2: stp: DISABLED</u> rmon: disabled tagging: disabled PVID: 1 | operational | Any/Both/Both | 0 7067 | 0 0 |
| | <u>Port3: stp: DISABLED</u> rmon: disabled tagging: disabled PVID: 1 | operational | Any/Both/Both | 0 4945 | 0 0 |
| | <u>Port4: stp: FORWARDING</u> rmon: disabled tagging: disabled PVID: 1 | operational | 1000/Full/None | 301897841 1973 | 1 2 |
| | <u>Port5: stp: FORWARDING</u> rmon: disabled tagging: disabled PVID: 1 | operational | 100/Full/Both | 6 29167791 | 1 0 |

NOTE: Items which load other forms when selected are underlined.